

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A conveyance device for conveying a load, comprising:

a load supporting device having a through hole with a top opening, a bottom opening, and an inner circumferential plane, the through hole passing in a gravity direction and ~~being for allowing~~ [[a]] the load to move through the top opening ~~of the through hole and through the bottom opening of the through hole without changing~~ [[the]] a size of the through hole; and

a fluid supplying device ~~to supply~~ for supplying a fluid into the through hole through the inner circumferential plane ~~of the through hole to float~~ [[a]] the load in a first position within the through hole and ~~to vary the~~ for varying a net force in the gravity direction to move the load from the first position through the bottom opening of the through hole,

wherein a porous material is provided at least at a portion of the inner circumferential plane of the through hole.

2. (Original) The conveyance device of claim 1, wherein a top section of the through hole has a tapered wall section whose inside diameter increases toward a top open end.

3. (Original) The conveyance device of claim 2, wherein a taper angle of the tapered wall section is greater than 0 degree and less than 90 degrees.

4. (Currently amended) The conveyance device of claim 2, wherein a height of the tapered wall section is greater than 0.2 times and less than 2.0 times ~~[[the]]~~ a height of the load.

5. (Currently amended) The conveyance device of claim 2, wherein a tapered end section having ~~[[the]]~~ a taper angle greater than that of the tapered wall section~~[[,]]~~ is formed on ~~[[a]]~~ the top open end of the tapered wall section.

6-7. (Canceled)

8. (Currently amended) The conveyance device of claim ~~[[7]]~~ 1, wherein a porosity ratio of the porous material is 1% or more and 30% or less.

9. (Currently amended) The conveyance device of claim ~~[[7]]~~ 1, wherein the porous material is graphite.

10. (Currently amended) The conveyance device of claim 1, further comprising:
a shutter member ~~which is~~ positioned lower than the fluid supplying device and movable between a position for closing at least a ~~[[part]]~~ portion of the through hole and a position for opening the through hole.

11. (Currently amended) The conveyance device of claim 1, wherein a pressure and/or an amount of the fluid ~~[[to be]]~~ supplied are changeable.

12. (Original) The conveyance device of claim 1, further comprising:
a heating device for raising a temperature of the fluid to be higher than a room temperature.

13. (Original) The conveyance device of claim 1, wherein the load is conveyed in a heated and fused condition.

14. (Currently amended) The conveyance device of claim 1, wherein a deviation from a spherical form of the load is half or less than an average radius R of the load.

15-16. (Canceled)

17. (Original) The conveyance device of claim 1, wherein the fluid is a gas of a nitrogen concentration at 60 mol % or more.

18-22. (Canceled)

23. (Currently amended) A conveyance method, comprising:
~~a step of dropping a load from a top end of a through hole, the through hole~~
~~which is passing through a load supporting device in a gravity direction~~[[,]];
~~a step of supporting the load denying gravity,~~ by supplying a fluid into the through
hole[[, and]];
~~a step of stopping~~ [[a]] support of the load by changing a flowing condition of the
fluid without changing a size of the through hole[[,]]; and
allowing the load to break away from a bottom end of the through hole.

24. (Currently amended) The conveyance method of claim 23, wherein the flowing condition of the fluid is varied by changing a pressure and/or an amount of the fluid.

25. (Currently amended) The conveyance method of claim 23, wherein the flowing condition of the fluid is varied by closing at least a [[part]] portion of the through hole.

26. (Currently amended) The conveyance method of claim 23, further comprising:

~~a step of~~ heating the fluid.

27. (Original) The conveyance method of claim 23, wherein the load is conveyed while the load is heated and fused.

28. (Currently amended) The conveyance method of claim 23, wherein a deviation from a spherical form of the load is half or less than an average radius R of the load.

29. (Original) The conveyance method of claim 23, wherein the load is glass.

30. (Original) The conveyance method of claim 23, wherein the load is plastic.

31. (Original) The conveyance method of claim 23, wherein the fluid is a gas of a nitrogen concentration at 60 mol % or more.

32. (Currently amended) A conveyance device for conveying a load, comprising:

a load supporting device having a through hole with a top opening and a bottom opening, the through hole passing in a gravity direction and ~~being for~~ allowing [[a]] the

load to move through the top opening of the through hole and through the bottom opening of the through hole;

a fluid supplying device ~~to supply~~ for supplying a fluid into the through hole to float ~~[[a]] the~~ load in a first position within the through hole and ~~to move~~ for moving the load from the first position through the bottom opening of the through hole; and

a shutter member positioned lower than the fluid supplying device and ~~[[being]]~~ movable between a first position for closing at least a ~~[[part]]~~ portion of the through hole and a second position for opening the through hole; ~~[[and]]~~

wherein when the shutter member is in the first position and the fluid is being supplied to the through hole, the load conveying device can float ~~[[a]] the~~ load within the through hole, and when the shutter member is in the second position, the load conveying device can move ~~[[a]] the~~ load through the bottom opening to an outside portion without moving the through hole.

33. (Previously Presented) The load conveyance device of claim 32, wherein a top section of the through hole has a tapered wall section whose inside diameter increases toward a top open end.

34. (Previously Presented) The load conveyance device of claim 33, wherein a taper angle of the tapered wall section is greater than 0 degree and less than 90 degrees.

35. (Currently amended) The load conveyance device of claim 33, wherein a height of the tapered wall section is greater than 0.2 times and less than 2.0 times ~~[[the]]~~ a height of the load.

36. (Currently amended) The load conveyance device of claim 33, wherein a tapered end section having ~~[[the]]~~ a taper angle greater than that of the tapered wall section~~[[,]]~~ is formed on ~~[[a]]~~ the top open end of the tapered wall section.

37. (Previously Presented) The load conveyance device of claim 32, wherein the fluid supplying device supplies the fluid through an inner circumferential plane of the through hole.

38. (Currently amended) The load conveyance device of claim 32, wherein a pressure and/or an amount of fluid ~~[[to be]]~~ supplied are changeable.

39. (Previously Presented) The load conveyance device of claim 32, further comprising:

a heating device for raising a temperature of the fluid to be higher than a room temperature.

40. (Previously Presented) The load conveyance device of claim 32, wherein the load is conveyed in a heated and fused condition.

41. (Currently amended) The load conveyance device of claim 32, wherein a deviation from a spherical form of the load is half or less than an average radius R of the load.

42. (Previously Presented) The load conveyance device of claim 32, wherein the fluid is a gas of a nitrogen concentration at 60 mol % or more.

43. (Currently amended) A conveyance method, comprising:
~~a step of~~ dropping a load from a top end of a through hole, the through hole
~~which is~~ passing through a load supporting device in a gravity direction[[,]];
~~a step of~~ supporting the load ~~denying gravity~~, by supplying a fluid into the through
hole, wherein a shutter member closes ~~which is closing~~ at least a [[part]] portion of a
bottom portion of the through hole ~~by a shutter member, and;~~
~~a step of~~ stopping [[a]] support of the load by opening the shutter member without
moving the through hole[[,]]; and
allowing the load to break away from a bottom end of the through hole.

44. (Currently amended) The conveyance method of claim 43, further comprising:

~~a step of~~ heating the fluid.

45. (Previously Presented) The conveyance method of claim 43, wherein the load is conveyed while the load is heated and fused.

46. (Currently amended) The conveyance method of claim 43, wherein a deviation from a spherical form of the load is half of less than an average radius R of the load.

47. (Previously Presented) The conveyance method of claim 43, wherein the load is glass.

48. (Previously Presented) The conveyance method of claim 43, wherein the fluid is a gas of a nitrogen concentration at 60 mol % or more.

49. (Currently amended) The conveyance method of claim 23, wherein the flowing condition of fluid is varied by opening and closing a shutter member ~~during~~ supplying when the fluid is supplied into the through hole.